

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2005/001288

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 F16D41/08 B60K17/26 B60K17/35

According to International Patent Classification (IPC) or to both national classification and IPC.

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 F16D B60K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/148848 A1 (WILLIAMS RANDOLPH C) 7 August 2003 (2003-08-07)	1,4
Y	paragraph '0032! -paragraph '0033!; figures 1,4,6	5,9-20
X	US 1 899 834 A (THOMAS GEORGE FREDERICK ET AL) 28 February 1933 (1933-02-28)	1-3
Y	claims 7,8; figures 2,6	5,9-20
A	US 5 732 807 A (ITOH ET AL) 31 March 1998 (1998-03-31) abstract; figures 5A,5B	7,8
A	FR 525 070 A (J. ANDREAU) 15 September 1921 (1921-09-15) page 3, line 29 - line 63; figure 5	7

**D** Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

12 July 2005

Date of mailing of the international search report

24 10. 2005

Name and mailing address of the ISA  
European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-20 40, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Wiberg, S

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:  
7-20
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM POT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5

The problem of moving the actuator plate is solved by the special technical feature of combining primary and reverse actuating system and device.

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2. claim: 6

The problem of disengaging the clutch is solved by the special technical feature of using an axial spring.

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3. claims: 7, 8

The problem of eliminating play is solved by the special technical feature of using axially biased bearings

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4. claims: 9-14

The problem of realising different modes is solved by the special technical feature of using a slot having portions with different widths.

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5. claims: 15-20

The problem of maintaining the rollers is solved by the special technical feature of using a cage.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003148848	A1	07-08-2003	AU 2003208938 A1 02-09-2003
			EP 1478867 A2 24-11-2004
			WO 03067110 A2 14-08-2003
			US 2003232690 A1 18-12-2003
			US 2004220010 A1 04-11-2004
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			JP 3609476 B2 12-01-2005
			JP 8230506 A 10-09-1996
			DE 19602685 A1 01-08-1996
FR 525070	A	15-09-1921	NONE